

REMARKS

This application has been reviewed in light of the Office Action dated August 25, 2005. In view of the foregoing amendments and the following remarks, favorable consideration and withdrawal of the objections and rejections are respectfully requested.

Claims 1-25 are presented for examination. Claims 1, 5, 6, 9-13, 17, 18 and 21-24 have been amended. Support for the claim changes can be found in the original specification, and therefore no new matter has been added. Claims 1 and 13 are in independent form.

The drawings and specification were objected to on formal grounds. Specifically, the Office Action alleged that the drawings do not show the ferroelectric film, and that Figure 5 and elements 1-15 (shown in Fig. 5) are not described in the specification.

In that regard, Applicants note that Fig. 5 is discussed in the Substitute Specification (filed on March 22, 2004), beginning at page 55, line 14 in the clean version thereof. Further reference to Fig. 5 is made in the amendments to the specification made herein. The specification has been amended herein to include reference to elements 1-10, 14 and 15 shown in Fig. 5. Fig. 5 has been amended herein to delete reference numerals 11, 12 and 13. The ferroelectric film is shown in Fig. 5 as element 7, as indicated in the amendments to the specification made herein. In view of the amendments to the specification and drawings made herein and the foregoing remarks, the objections to the specification and drawings are believed to have been overcome. Withdrawal of those objections is respectfully requested.


Claims 1-25 were rejected under 35 U.S.C. § 112, first and second paragraphs, in view of certain subject matter that the Office Action alleges is not enabled and is not sufficiently clear to permit determination of the metes and bounds of the claims.

In response to those rejections, the claims have been amended to further clarify the claimed subject matter. In addition, the Examiner's attention is directed to the original specification, e.g., at page 37, lines 4-21, where x , x_0 , z and z_0 are defined. As explained thereat, $x/x_0 = a/a_0$, where a = the a-axis lattice constant (length of the unit cell along the a-axis (x-axis) at equilibrium volume) of an epitaxial ferroelectric thin film of a given material (e.g., PZT) having a given crystal structure grown on a substrate, and a_0 = the a-axis lattice constant of bulk ceramics of the given material having the given crystal structure, and $z/z_0 = c/c_0$, where c = the c-axis lattice constant (length of the unit cell along the c-axis (z-axis) at equilibrium volume) of an epitaxial ferroelectric thin film of a given material (e.g., PZT) having a given crystal structure grown on a substrate, and c_0 = the c-axis lattice constant of bulk ceramics of the given material having the given crystal structure.

In view of the claim amendments made herein and the foregoing remarks, the rejections under 35 U.S.C. § 112, first and second paragraphs, are believed to have been overcome. Withdrawal of those rejections is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


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